

U.S. Patent Application No. 10/053,777  
Art Unit: 2157

Docket No: 2000-0056

**In the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A ~~speech-to-text encoding and decoding~~ device for use

in a network comprising:

a modem that connects with the network to convey information to, and receive information from the network;

a subscriber terminal having an interface that enables communication with the modem, a display interface that communicates with a visual display device to display information, a telephone interface that enables communication with a telephone to convey voice information of a user, and a buffer that receives and stores speech information; and

a processor to decode and display on the display device speech information as text in a form of words upon receipt of speech information from the network.

2. (Original) The device as recited in claim 1, wherein the subscriber terminal further includes:

a memory that stores voice patterns, and wherein  
said processor further includes a speech analyzer that recognizes an incoming voice pattern based on information stored in the memory.

3. (Canceled)

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4. (Currently Amended) The device as recited in claim 1, wherein said subscriber terminal includes a speech database for storing speech segments identified with certain users, and said processor accesses said database to identify and display ~~the an~~ identity of users according to matches between speech segments received in real time and stored in the database.

5. (Original) The device as recited in claim 1, wherein said processor includes a detector that responds to subscriber inputs to activate and deactivate speech recognition.

6. (Original) The device as recited in claim 5, wherein said detector comprises a DTMF tone detector and said user inputs comprise DTMF tones of a telephone.

7. (Currently Amended) A method of providing automated speech-to-text translation ~~for a hearing impaired individual~~, the method comprising:  
receiving at a broadband telephony interface speech packets destined for ~~the hearing impaired~~ an individual;  
storing the speech packets in a buffer; and  
processing the speech packets to display textual representations thereof as words on a display device.

8. (Original) The method as recited in claim 7, further comprising:  
storing speech patterns in a database, and  
analyzing and comparing incoming speech obtained by processing the speech packets with speech patterns stored in the database in order to provide speaker

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identification capability.

9-10. (Canceled)

11. (Original) The method as recited in claim 7, further comprising:  
responding to a command from the subscriber to activate and deactivate  
speech processing.

12. (Currently Amended) A ~~speech-to-text encoding and decoding~~ device for use  
in a network comprising:  
a network interface that enables communication with the network;  
a subscriber terminal that communicates information with the network  
interface, a display device, and a telephone device ~~or other auditory device~~; and  
a processor that decodes and displays speech information as text in a form of  
words on the display device during receipt of real time speech information from the  
network and that encodes ~~and/or and~~ transmits speech information to the network  
when speech information is received from the telephone.

13. (Original) A speech-to-text translation device comprising:  
a subscriber terminal having a network interface that enables communication  
with a network, a display interface that communicates with a visual display device to  
display textual information, and a telephone interface that enables communication  
with a telephone to convey voice information of a user,  
said subscriber terminal including a processor utilizing a speech buffer to  
receive at least one of streamed and real time speech information and to decode and

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display speech information as text on the display device during receipt of speech information from the network, and a database that enables identification of a prior caller based on speech segments stored in a database.

14. (Canceled)

15. (Currently Amended) A method of speech-to-text translation comprising:  
receiving real time speech information;  
converting the real time speech information into text;  
analyzing the speech information to determine identity of a caller based on previously stored speech segments; and  
displaying ~~at least one of~~ a textual representation of the speech ~~[,]~~ including punctuation, obtained as a result of the analyzing step.

16. (Currently Amended) A method of speech-to-text translation comprising:  
receiving real time speech information;  
converting the real time speech information into text;  
analyzing the speech information to determine an identity of a caller based on previously stored speech segments and at least one of gender, soft-spoken words, hard-spoken words, shouting, laughter, or human expression; and  
displaying ~~at least one of~~ a textual representation of the speech~~[,]~~ including punctuation, obtained as a result of the analyzing step.

17. (New) A machine-readable medium including instructions for a processor, the machine-readable medium comprising:

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instructions for receiving, at a broadband telephony interface, speech packets  
destined for an individual;  
storing the speech packets in a buffer; and  
processing the speech packets to display textual representations thereof as  
words on a display device.

18. (New) The machine-readable medium of claim 17, further comprising:  
instructions for storing speech patterns in a database, and  
instructions for analyzing and comparing incoming speech obtained by  
processing the speech packets with speech patterns stored in the database in order to  
provide speaker identification capability.
19. (New) The machine-readable medium of claim 18, further comprising:  
instructions for displaying an indication of a speaker identity of a speaker  
associated with ones of the displayed textual representations.
20. (New) The machine-readable medium of claim 17, further comprising:  
instructions for analyzing characteristics of incoming speech obtained by  
processing the speech packets and inserting punctuation in the displayed textual  
representations thereof in response to the analysis.
21. (New) The machine-implemented method of claim 20, wherein the  
characteristics include at least one of changes in tone, volume, or inflection.